

**SEP 29 2004**  
**INFORMATION DISCLOSURE STATEMENT**  
**BY APPLICANT**

Attorney Docket Number	23-65304-01
Application Number	09/209,541
Filing Date	December 11, 1998
First Named Inventor	Gutowska
Art Unit	1711
Examiner Name	Jeffrey C. Mullis

**U.S. PATENT DOCUMENTS**

Examiner's Initials*	Cite No. (optional)	Number	Publication or Issue Date	Name of Applicant or Patentee
		4,147,764	April 3, 1979	Levy et al.
		4,526,938	July 2, 1985	Churchill et al.
		4,732,930	March 22, 1988	Tanaka et al.
		5,278,201	January 11, 1994	Dunn et al.
		5,410,016	April 25, 1995	Hubbell et al.
		5,449,513	September 12, 1995	Yokoyama et al.
		5,462,990	October 31, 1995	Hubbell et al.
		5,514,379	May 7, 1996	Weissleder et al.
		5,525,334	June 11, 1996	Ito et al.
		5,575,815	November 19, 1996	Slepian et al.
		5,580,929	December 3, 1996	Tanaka et al.
		5,624,685	April 29, 1997	Takahashi et al.
		5,634,946	June 3, 1997	Slepian
		5,643,246	July 1, 1997	Leeb et al.
		5,702,717	December 30, 1997	Cha et al.
		5,752,974	May 19, 1998	Rhee et al.
		5,788,687	August 4, 1998	Batich et al.

EXAMINER SIGNATURE: <i>J. Mullis</i>	DATE CONSIDERED: <i>10-64</i>
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U.S. PATENT AND TRADEMARK OFFICE

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	5,820,879	October 13, 1998	Fernandez et al.
	5,843,156	December 1, 1998	Slepian et al.
	5,843,331	December 1, 1998	Schober et al.
	5,858,746	January 12, 1999	Hubbell et al.
	5,876,741	March 2, 1999	Ron
	5,939,485	August 17, 1999	Bromberg et al.
	5,954,706	September 21, 1999	Sahatjian
	5,969,052	October 19, 1999	Mumick et al.
	5,976,648	November 2, 1999	Li et al.
	5,998,588	December 7, 1999	Hoffman et al.
	6,030,634	February 29, 2000	Wu et al.
	6,060,582	May 9, 2000	Hubbell et al.
	6,065,572	May 23, 2000	Schober et al.
	6,083,524	July 4, 2000	Sawhney et al.
	6,290,729	September 18, 2001	Slepian et al.
	6,296,831	October 2, 2001	Weller et al.
	US 2001/0046518 A1	November 29, 2001	Sawhney
	6,352,682	March 5, 2002	Leavitt et al.
	6,486,213	November 26, 2002	Chen et al.

EXAMINER  
SIGNATURE:*J. Mullis*DATE  
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10-04

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**FOREIGN PATENT DOCUMENTS**

Examiner's Initials*	Cite No. (optional)	Country	Number	Publication Date	Name of Applicant or Patentee
		World Intellectual Property Organization (WIPO)	WO 91/15526 A2	October 17, 1991	Roberts et al.
		World Intellectual Property Organization (WIPO)	WO 91/19481 A1	December 26, 1991	Joshi et al.
		European Union	EP 534,015	March 31, 1993	Mikami et al.
		Japan	JP 06-293632	October 21, 1994	Koichi et al.
		World Intellectual Property Organization (WIPO)	WO 95/00162 A1	January 5, 1995	Mensi-Fattohi et al.
		World Intellectual Property Organization (WIPO)	WO 95/07719 A1	March 23, 1995	Kubota
		World Intellectual Property Organization (WIPO)	WO 95/24430 A2	September 14, 1995	Hoffman et al.
		World Intellectual Property Organization (WIPO)	WO 96/03112 A1	February 8, 1996	Filler et al.
		Europe	EP 0 704 217 A2	April 3, 1996	Ito et al.
		World Intellectual Property Organization (WIPO)	WO 97/00275 A2	January 3, 1997	Bromberg et al.
		World Intellectual Property Organization (WIPO)	WO 97/09068 A2	March 13, 1997	Hoffman et al.
		World Intellectual Property Organization (WIPO)	WO 99/07343 A1	February 18, 1999	Jeong et al.
		World Intellectual Property Organization (WIPO)	WO 99/49908 A1	October 7, 1999	McBride et al.
		World Intellectual Property Organization (WIPO)	WO 99/55386 A2	November 4, 1999	Weller et al.
		World Intellectual Property Organization (WIPO)	WO 00/07603 A2	February 17, 2000	Ron et al.

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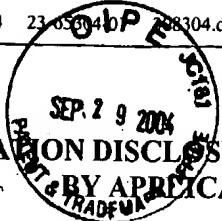
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J		BAE et al., "Temperature Dependence of Swelling of Crosslinked Poly( <i>N,N'</i> -alkyl substituted acrylamides) in Water," <i>Journal of Polymer Science: Part B: Polymer Physics</i> , Vol. 28, p. 923-936, 1990.
J		BELTRAN et al., "Swelling Equilibria for Weakly Ionizable, Temperature-Sensitive Hydrogels," <i>Macromolecules</i> , Vol. 24, p. 549-551, 1991.
J		BRAZEL et al., "Temperature- and pH- Sensitive Hydrogels for Controlled Release of Antithrombotic Agents," <i>Materials Research Society Symposium Proceedings</i> , Vol. 331, p. 211-216, 1994.
J		CHEN et al., "A New Temperature- and pH-Responsive Copolymer for Possible Use in Protein Conjugation," <i>Macromolecular Chemistry and Physics</i> , Vol.196, p. 1251-1259, 1995.
J		FEIL et al., "Effect of Comonomer Hydrophilicity and Ionization on the Lower Critical Solution Temperature of <i>N</i> -Isopropylacrylamide Copolymers," <i>Macromolecules</i> , Vol. 26, p. 2496-2500, 1993.
J		GUTOWSKA et al., "Thermosensitive Polymers for Drug Delivery," <i>Polymer Preprints</i> (American Chemical Society, Division of Polymer Chemistry), Vol. 37, No. 2, p. 115-116, 1996.
J		HOFFMAN et al., "Conjugates of Stimuli-Responsive Polymers and Biomolecules," <i>Macromolecular Symposia</i> , Vol. 118, p. 553-563, 1997.
J		HOFFMAN, "Intelligent Polymers in Medicine and Biotechnology," <i>Artificial Organs</i> , Vol. 19, No. 5, p. 458-467, May 1995.
J		HOFFMAN, "Environmentally Sensitive Polymers and Hydrogels," <i>MSR Bulletin</i> , Vol. 16, No. 9, p. 42-46, September 1991.
J		JEONG et al., "Biodegradable Block Copolymers as Injectable Drug-Delivery Systems," <i>Nature</i> , Vol. 388, No. 6645, p. 860-862, August 1997.
J		OKANO et al., "Temperature-Responsive Poly( <i>N</i> -Isopropylacrylamide) as a Modulator for Alteration of Hydrophilic/Hydrophobic Surface Properties to Control Activation/ Inactivation of Platelets," <i>Journal of Controlled Release</i> , Vol. 36, p. 125-133, 1995.
J		PARK et al., "Effect of Temperature Cycling on the Activity and Productivity of Immobilized $\beta$ -Galactosidase in a Thermally Reversible Hydrogel Bead Reactor," <i>Applied Biochemistry and Biotechnology</i> , Vol. 19, p. 1-9, 1988.
J		PARK et al., "Immobilization and Characterization of $\beta$ -Galactosidase in Thermally Reversible Hydrogel Beads," <i>Journal of Biomedical Materials Research</i> , Vol. 24, p. 21-38, 1990.

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		TAKEI et al., "Temperature-Modulated Platelet and Lymphocyte Interactions with Poly( <i>N</i> -Isopropylacrylamide)-Grafted Surfaces," <i>Biomaterials</i> , Vol. 16, No. 9, p. 667-673, 1995.
<i>J</i>		VERNON et al., "In Vitro Insulin Release of Rat Islets Entrapped in Thermally Reversible Polymer Gel," <i>Proceedings of the International Symposium on Controlled Release of Bioactive Materials</i> , 23rd, p. 216-217, 1996.
<i>J</i>		YAN et al., "Polymer Communications," <i>Polymer</i> , Vol. 36, No. 4, p. 887-889, 1995.

EXAMINER SIGNATURE:	S. Muller	DATE CONSIDERED: 10-08
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